

## **C.1 BACKGROUND**

In 2003, the Integrated Award Environment (also known as the Integrated Acquisition Environment and Integrated Architecture Environment) was created as an e-Government (e-Gov) initiative under the President's Management Agenda. As part of the e-Gov initiative, the Office of Management and Budget (OMB) designated the General Services Administration as the executive agent of the Integrated Award Environment (IAE).

The concept behind the IAE was to provide Federal Government agencies, contractors, and grant applicants with a shared IT system to manage the acquisition and grants making process from solicitation through closeout. Goals of the IAE Program are to (1) create a simpler, common, integrated business process for buyers and sellers that promote competition, transparency, and integrity; (2) increase data sharing to enable better decisions in procurement, logistics, payment, and performance assessment; and (3) take a unified approach to obtaining modern tools to leverage investment costs for business-related processes.

The IAE facilitates all phases of the federal awards management lifecycle, serves as the entity manager for acquisition and financial assistance (grants and loans) communities, provides market research for contract administration to the federal acquisition community as well as private and commercial firms that are interested in doing business with the Government, and stores information that the public in general seeks on how tax dollars are being spent. The IAE provides data to Government and non-Government stakeholders including the general public. Below are some general statistics about the IAE:

- Contain information on approximately 500,000 active entities doing business or seeking to do business with the Federal Government;
- Track more than five million transactions totaling over \$530 billion in annual obligations;
- Provide visibility to over \$1 trillion in Government contracts at various stages of performance;
- Support over 30,000 monthly customer support inquiries;
- Provide past performance access for over 22,000 contracting professionals access IAE systems each month; and
- Display over 23,000 Federal business opportunities to millions of users each month.

The IAE is governed by the Award Committee for eGovernment (ACE), which includes the Procurement Committee for eGov (PCE) and the Financial Assistance Committee for e-Gov (FACE). Additionally, all IAE operations are coordinated and prioritized by the Configuration Control Board (CCB) that consists of representatives from each of the 24 Chief Financial Operating Officer (CFO) agencies. In response to program audits and requests generated through the OMB techstat processes, the IAE Program Management Office (PMO) initiated an Analysis of Technical Alternatives (ATA). The goal of the ATA was to provide recommendations for IAE to move from a brittle and inflexible solution to a robust, flexible, and open solution. This ATA provides the basis for the future architecture of the IAE, which is to be defined under this task order (Section J - List of Attachments, Attachment M for Alternatives Analysis document). It is anticipated that over the next Fiscal Year, the IAE will mature from a collection of siloed systems to a shared environment that will be transparent, open, and scalable for rapid stand up of

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services and functionality. A key component of this shared environment will be technical governance support required in this Statement of Work.

The IAE future state will be characterized by a use of Agile development, applying DevOps concepts and ensuring continuous integration of the IAE systems. The contractor shall leverage an accepted Agile methodology (i.e. scrum), and assist in achieving the IAE “to-be” architecture based on the following principles:

- User centric design;
- Agile development;
- Data transparency;
- Open source;
- Open APIs;
- Strong testing regime;
- Strict security protocols; and
- Managed code handoffs.

### **C.1.1 PURPOSE**

The purpose of this task order is to provide Government assistance in technical governance, support system development, integration, and related program management support services to the GSA, Integrated Award Environment Program Management Office (PMO). This support will ensure that the Government is implementing an architecture that fully leverages user centric design, Agile development, data transparency, open source, open APIs, rigorous testing, proper security protocols, and managed code hand-offs.

### **C.1.3 AGENCY MISSION**

The IAE facilitates every phase of the acquisition lifecycle, from market research to contract administration. The Federal Government is working to make the acquisition of goods and services secure, streamlined and cost-effective with IAE. The goal of the IAE initiative is to integrate and unify the federal acquisition process for Government buyers and sellers.

### **C.2 SCOPE**

The scope of this task order includes technical governance and other operation support services necessary for the development of and seamless transition to IAE’s future state, and to ensure integration of services and functionality during the operational phase of the IAE future state. This support shall encompass the current IAE, the transition to the IAE future state, and the operational phase of the IAE future state. The specific requirements include:

- Program and Project Management Over Contractor Team;
- IAE Architecture Integration and Platform Planning and ManagementSupport;
- Technical Governance, Data Management, Open Source andTransparency Support;
- Technical Requirements Documentation Support;
- User Experience Support;
- Business Analysis and Business Case Support; and
- Change Management Support.

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Under the IAE future state, this contractor shall support the Government teams to maintain the delivery quality of IAE. The successful delivery of these services requires cooperation and coordination between the contractor, the Government, and third party contractors. The contractor shall assist the Government in coordinating with the following groups:

Common Services Platform contractor;

Core Services contractor(s);

- Other Development Teams within GSA (either contractors or Government teams) to develop applications as part of IAE;
- External Development Teams to include other Government agencies, private organizations, and citizens; and
- The Independent Validation and Verification (IV&V)/Development Operations (DevOps) contractor.

A detailed description of each parties' roles and responsibilities is contained in Section J, Attachments N, O, and P.

In conjunction, consultation, and at the direction of the Government, the contractor shall be responsible for assisting the Government in managing the technical governance that will ensure integrated architecture components of the IAE future state should appear as a single integrated system to end users. The contractor shall collaboratively work with the Government and any applicable third parties to assist in the maintenance of artifacts and deliverables required. The artifacts shall be accessible to the Government at all times. A detailed layout of the current IAE operating environment and the IAE future operating environment is included in section J, attachment Q and R, respectively.

### **C.3 CURRENT AND PLANNED INFORMATION TECHNOLOGY (IT)/NETWORK ENVIRONMENT**

During the course of the life of this task order, the IAE IT environment will go through substantial transformation. The following sections highlight the structure and composition of the current IAE IT environment and the planned transformed IAE IT environment. The contractor shall be expected to effectively facilitate technical governance and assist the Government in the management of the current IAE IT environment, the transformed IAE IT environment, and the process for achieving the transformed IAE IT environment.

#### **C.3.1 CURRENT INFORMATION TECHNOLOGY (IT)/NETWORK ENVIRONMENT**

Currently, the IAE consists of the following applications:

- System of Award Management (SAM)
- Federal Procurement Data System – Next Generation (FPDS-NG)
- USA Spending
- Federal Business Opportunities (FBO)
- Electronic Subcontracting Reporting System (eSRS)
- Federal Funding Accountability and Transparency Act (FFATA) Subaward Reporting System (FSRS)

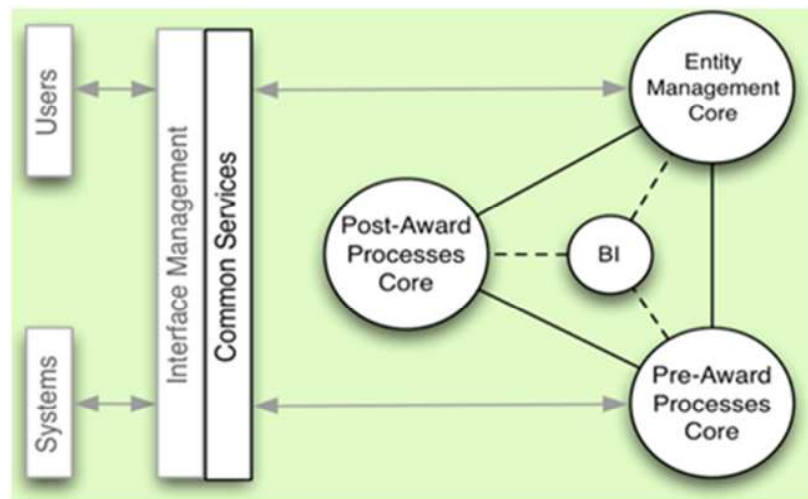
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- Contractor Performance Assessment Reporting System (CPARS)
- Federal Awardee Performance and Integrity Information System (FAPIS)
- Past Performance Information Retrieval System (PPIRS)
- Federal Service Desk (FSD)
- Wage Determination OnLine (WDOL)
- Catalog of Federal Domestic Assistance (CFDA)

Please see Section J - List of Attachments, Attachment Q for specific detail on each of the current IAE applications.

### **C.3.2 TRANSFORMED INFORMATION TECHNOLOGY (IT) ENVIRONMENT**

The Analysis of Technical Alternatives provided a high-level and holistic understanding of the performance gaps in the IAE program, documented known performance issues, and proposed a technical architecture that would remedy root causes of current performance gaps. The ATA recommended re-architecting the IAE environment to a three Core and Application Programming Interface (API) model (see below chart). This recommended architecture was coordinated through the techstat process, and, in November of 2013, the ACE approved the IAE program plan to re-architect IAE. The recommended IAE architecture is depicted below:



This recommended approach will refocus SAM as an entity management core, and consolidate the remaining functions performed by the legacy IAE systems into two cores addressing pre- and postaward business processes. The estimated timeline for this effort is included in the IAE maturity roadmap located in Section J - List of Attachments, Attachment S. Common services will support the entire environment and establish visualization and customer relationship management layers of business intelligence on top of the data warehouse. User interfaces may be outsourced to third parties via APIs. The Government anticipates using the Agile methodology for application development in IAE. An example of how the Government plans to engage stakeholders and leverage Agile is provided in Section J - List of Attachments, Attachment T.

#### **C.4 OBJECTIVE**

The objective of this task order is to assist the Government in achieving a seamless transition to the IAE future state, and to assist the Government in ensuring a managed integration of services into the IAE future state during its operational phase. In its operational phase, the IAE future state architecture will facilitate a comprehensive and seamless user experience that will provide shared services to the acquisition community from a single platform. The contractor shall assist in the achievement of this IAE future state by working closely with the Government in providing recommended solutions that will ensure the future state is a robust service oriented architecture that includes all facets of the architectural lifecycle, and complies with the following architectural principles:

- IAE must be open;
- IAE must treat data as an asset;
- IAE must use continuous improvement to drive innovation;
- IAE must provide an effective user experience for all its stakeholders;
- IAE business transactions must be time- and cost-measurable; and
- IAE must treat security as foundational.

#### **C.5 TASKS**

The contractor shall perform the following tasks to support the Government in overseeing the design, development, and operations and maintenance of the Integrated Award Environment. The contractor shall not be responsible for providing any approval authority or any other support that may be interpreted as inherently Governmental. Due to the nature of this requirement of providing support for inherently governmental and critical functions, the Government will provide additional oversight to ensure that those activities closely associated with inherently governmental functions and those critical functions do not develop into inherently governmental functions. All tasks in this section which require program management support, analysis and recommendations will be reviewed for approval by the Contracting Officer's Representative (COR). Likewise all reports and deliverables will be reviewed for approval or acceptance. All tasks will be monitored in accordance with the quality assurance surveillance plan and the Government retains decision-making authority and oversight of all tasks herein.

All contractor personnel attending meetings, answering Government telephones, and working in other situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of others that they are Government officials.

The contractor may indicate its authorship on deliverables, but all deliverables shall be marked in accordance with section F.5 of this Task Order.

##### **C.5.1 TASK 1 – PROVIDE PROGRAM MANAGEMENT OVER CONTRACTOR TEAM**

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The contractor shall provide program management of its own team under this TO. This includes the management of all activities performed by contractor personnel, including subcontractors, to satisfy the requirements identified in this Statement of Work (SOW). The contractor shall identify a Project Manager (PM) by name who shall provide management, direction, administration, quality control, and leadership in the execution of this TO. The contractor shall participate in meetings, teleconferences, email correspondence, and other online collaborative systems to guide the project team to a successful project conclusion.

### **C.5.1.1 SUBTASK 1.1 –ATTEND A PROJECT KICK-OFF MEETING**

The contractor shall participate in a Project Kick-Off Meeting at the GSA office located at 1800 F Street N.W., Washington, D.C., unless otherwise directed by the Contracting Officer. The meeting will provide an introduction between the contractor personnel and Government personnel who will be involved with the TO. The meeting will provide the opportunity to discuss technical, management, and security issues, and travel authorization and reporting procedures. At a minimum, the attendees shall include Key contractor Personnel, representatives from GSA, the CO, COR and other relevant Government personnel.

The contractor shall provide meeting notes NLT 5 days after the Kick-Off meeting.

### **C.5.1.2 SUBTASK 1.2 – PREPARE A PROJECT MANAGEMENT PLAN (PMP)**

The contractor shall document all support requirements contained in this SOW in a proposed PMP. The PMP shall include the following elements:

- Project Management Approach
- Work Breakdown Structure (WBS)
- Responsibility Matrix to include all associated responsibilities and partnerships with Government organizations/personnel
- Schedule with milestones, tasks, and subtasks required in this SOW

The contractor shall provide the Government with a draft PMP on which the Government will make comments. The final PMP shall incorporate the Government's comments.

The PMP is an evolutionary document that shall be updated, at a minimum, quarterly. The contractor shall work from the latest Government-approved version of the PMP. The contractor shall ensure its PMP is aligned with the IAE Integrated Master Schedule (IMS).

### **C.5.1.3 SUBTASK 1.3 – QUALITY CONTROL PLAN**

The contractor shall develop a Quality Control Plan (QCP), integrated with the PMP. The contractor shall periodically update the QCP as changes are identified or are necessary.

The QCP provides for inspection of all services and deliverables to verify conformance with acceptability standards specified in the Task Order and industry best practices. The QCP is a living document and shall be revised by the contractor as conditions change.

The QCP shall contain:

- Provisions for responding to and incorporating technical directions and comments from the COR and TPOC

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- Descriptions of techniques to be employed for producing and validating services and deliverables conforming to the acceptable quality standards in the SOC
- A description of the methodology that shall be used to ensure the Government receives quality services

### **C.5.1.4 SUBTASK 1.4 – PREPARE A MONTHLY STATUS REPORT (MSR)**

The contractor PM shall provide an MSR (Section J-List of Attachments, Attachment G) via electronic mail to the TPOC and the COR. The MSR shall include a copy of the draft invoice to also be provided to the Contracting Officer and Contract Specialist and shall include the following information, as applicable:

- Activities during reporting period, by task (include: on-going activities, new activities, activities completed; progress to date on all above mentioned activities). Start each section with a brief description of the task.
- Problems and corrective actions taken. Also include issues or concerns and proposed resolutions to address them.
- Billable hours charged each month with a cumulative total
- Personnel gains, losses, and status (security clearance, etc.).
- Government actions requested
- Government approved Project Schedule (show major tasks, milestones, and deliverables; planned and actual start and completion dates for each).
- Summary of trips taken, conferences attended, etc. (attach trip reports to this MSR for reporting period).
- Organizational Conflict of Interest (OCI) compliance statement

### **C.5.1.5 SUBTASK 1.5 – CONVENE TECHNICAL STATUS MEETINGS**

The contractor Project Manager shall convene a Status Meeting every other week with the TPOC and other Government stakeholders and provide status updates on the work under this task order using a mutually agreed upon format.

The contractor Project Manager shall convene a monthly Contract Activity and Status Meeting with the TPOC, COR, and any other stakeholders identified by the Government. The purpose of this meeting is to ensure all stakeholders are informed of the monthly activities and MSR, provide opportunities to identify other activities and establish priorities, and coordinate resolution of identified problems or opportunities. The contractor Project Manager shall provide minutes of these meetings, including attendance, issues discussed, proposed resolution to the Government, and action items assigned, to the COR within 5 workdays following the meeting.

### **C.5.1.6 SUBTASK 1.6 – PREPARE TRIP REPORTS**

The Government will identify the need for a Trip Report when the request for contractor travel is submitted. The contractor shall also keep a summary of all long-distance travel that includes the name of the employee, location of travel, duration of trip, point of contact (POC) at travel location, and general description of the trip purpose.

### **C.5.1.7 SUBTASK 1.7 – TRANSITION-OUT**

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The contractor shall facilitate transition to Government personnel or an incoming contractor prior to the expiration of the Task Order. The contractor shall provide a Transition-Out Plan NLT 90 calendar days prior to expiration of the Task Order and/or commencement of transition. The contractor shall identify how it will coordinate with the incoming contractor and/or Government personnel to ensure an efficient and effective knowledge transfer regarding the following:

- Project management processes
  - Key Points of contact
  - Location of technical and project management documentation
  - Status of ongoing technical initiatives
  - Coordinate contractor to contractor communication with Government points of contact to ensure a seamless, successful transition.
  - Knowledge transfer from key personnel to incoming key personnel
- Propose a Transition schedule complete with milestones for COR Approval

Actions requested of the Government

The contractor shall also establish and maintain effective communication with the incoming contractor/Government personnel for the period of the transition via weekly status meetings.

During transition-out, the contractor shall assist the COR in conducting a transition-out lessons learned meeting. The purpose of the meeting is to review the key challenges, risks, and any successes that were realized during each of the project phases, and to present any final recommendations to the Government to ensure successful implementation of IAE. The transition-out lessons learned meeting will take place NLT 30 calendar days prior to expiration of the Task Order and will include a detailed write up of meeting minutes and final recommendations.

### **C.5.2 TASK 2 – ARCHITECTURE INTEGRATION AND PLATFORM PLANNING AND MANAGEMENT SUPPORT**

The contractor shall support the IAE Program Management Office (PMO) in planning the integration of functionality and components into the new IAE architecture. The contractor shall ensure the integrity of the architecture remains as the functions are added into the architecture, as different contractors assist in the Government's management of common services and the cores, and as APIs are developed and implemented. The contractor shall assist the Government in management of the architecture, ensure architectures and systems are compliant with applicable information security requirements, and work with IAE to reconcile technical issues that put the IAE architecture at risk. The contractor may be required to provide troubleshooting support across the architecture and between multiple parties. The contractor shall provide recommendations to the Government's Point of Contact, who has ultimate decision making authority.

The architecture planning will start with a baseline architecture documented from the Common Services Government approved architecture. The Technical Governance contractor shall be responsible for using the baseline architecture and creating a technical, architecture document that represents the environment that for Common Services.



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The contractor shall support the Government in management of architectural change. The contractor shall provide the support necessary for IAE to maintain an Integrated Master Schedule (IMS) that ties together all efforts for IAE to achieve a seamless transition and operational state for the IAE future state. The objective of this task is ensure that the IAE architecture is designed to be and remains secure, robust, flexible, and open throughout any changes to the environment.

### **C.5.2.1 SUBTASK 2.1 – ARCHITECTURE PLANNING SUPPORT**

The contractor shall support the planning and evolution of the IAE architecture. The contractor shall document the architecture using the Government-provided architecture tool (currently ProVision) and other tools appropriate to capture a conceptual, logical, and physical architecture.

The contractor shall assist the Government in developing and implementing an IAE architecture integration and management plan to document the architecture baseline, the evolved architecture, the tasks required to manage the architecture, and the associated SOPs. The plan shall be updated monthly, or upon Government request as the architecture matures. The contractor shall meet at least weekly with the IAE TPOC, the appropriate IAE Business Operations (BOPs) Division staff, and other IAE support staff to discuss the IAE architecture management. The topics of discussion may include, but are not limited to, release planning, Agile sprints, and IAE business priorities.

The architecture integration and management plan shall capture near-, mid- and long-term target architectures. The plan must take into account the IAE roadmap (section J, Attachment S), which will include the integration of components and business functions into the common services and the transition out of those same functions from their legacy systems. The priority of those changes to IAE will be driven by the Government and the governance bodies of IAE as identified by the Government.

In order to plan the architecture and integration, the Government will provide information about current IAE operations and configuration. It is expected that as new business requirements or operational issues arise, the architecture will be updated to accommodate those changes. As a part of the IAE architecture and integration plan, the contractor shall assist in the development and maintenance of the following artifacts:

- Architectural life cycle documentation including baseline, transition, and target architectures;
- Architectural change management plan
- Methodology for architectural interrogation (Architectural Change Analysis)
- Requests for change to architecture
- Post architectural implementation review documentation

### **C.5.2.2 SUBTASK 2.2 – RELEASE PLANNING SUPPORT**

The contractor shall aid the Government is assessing the planning and scope of releases based on resources, architecture, dependencies, and business need. The contractor shall consolidate inputs,

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provide recommendations to the Government, and track release plans across multiple parties, sprint teams, and across releases. The Government will be integrating new functionality from multiple developers concurrently, and requires recommendations from the contractor to make technical and business decisions to ensure functionality is consistent with IAE architecture.

The Government will be using Agile processes to conduct regular releases. IAE intends to use a modified Scaled Agile Framework (SAFe) model. The contractor shall support both the operational and development arms of Agile work. The contractor shall support the Government in assessing release and iteration planning.

As a part of this subtask, the contractor shall provide and maintain an IAE Release Plan to include the following artifacts:

- Release status, including Release burn down charts
- Sprint Backlog
- Product Backlog
- Scrum Task board
- Release retrospective documentation
- Roadmap of Intended Deliverables (e.g Epics, features)
- Potentially Shippable Increment (PSI) Objectives

### **C.5.2.3 SUBTASK 2.3- DEVELOP AND MAINTAIN AN IAE INTEGRATED MASTER SCHEDULE**

The contractor shall propose and maintain the Government approved IAE integrated master schedule (IMS) that serves as the centralized tool for aggregating and aligning efforts across IAE. The IMS shall contain all milestones, deliverables, and activities that will be occurring to maintain and transform the IAE. The IMS shall provide the following:

- The ability to identify and assess actual progress versus the planned progress;
- The ability to identify and monitor the critical path; and
- A method for Government prioritizing activities and milestones.

### **C.5.3 TASK 3 – TECHNICAL GOVERNANCE, DATA MANAGEMENT, OPEN SOURCE AND TRANSPARENCY SUPPORT**

The contractor shall support and maintain compliance with IAE technical governance standards across the environment, assist in the establishment and implementation of data management standards, and ensure that the IAE future environment is transparent and maximizes open source to the maximum extent practicable.

#### **C.5.3.1 SUBTASK 3.1- PROVIDE TECHNICAL GOVERNANCE SUPPORT**

The contractor shall assist the Government in maintaining IAE technical governance standards for the IAE environment. All proposed changes to standards shall be reviewed and approved by

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the Government. The contractor shall assist Government with documenting all technical aspects of the environment and architecture including coding development, API governance, and data management in a Technical Governance Management Plan. As a part of the Technical Governance Management Plan, the contractor shall assist the Government in the development and maintenance of the following artifacts:

- Technical Architecture Standards to document the framework for the architecture, including the architecture metamodel, and tool definitions;
- Technical Architecture Definition of the IAE architecture from the conceptual, logical, and physical levels;
- Coding Standards for development collaboratively defined for purposes of evaluating of code;
- Technical Architecture Change Management Plan to document the methods by which changes to the architecture at any level are proposed, evaluated, approved and captured so as to maintain balance flexibility and control in the technical architecture;
- Architecture Strategy to allow the architecture to evolve and meet Government needs in alignment with the roadmap; and
- Architectural Epics, Features, and Stories.

The contractor shall assess architecture change requests and provide recommendations to the Government. The contractor shall support the Government in managing the corresponding changes as they occur through the Agile development cycle.

### **C.5.3.2 SUBTASK 3.2– PROVIDE DATA MANAGMENT STANDARDS AND GOVERNANCE SUPPORT**

The contractor shall assist Government officials throughout the IAE in documenting data management standards and support the reconciliation of data elements across the legacy IAE environment into the new common services data warehouse. The contractor shall document all facets of data standards, and assist the Government in developing a data management and governance plan for management for across the IAE architecture. The data management and governance plan must be reviewed and approved by the Government. The contractor shall use the data models within IAE instance of ProVision or current Government provided tool to view/mange data models. The contractor shall assist the PMO to implement the plan to ensure IAE data is managed accordingly.

The contractor shall coordinate with Government personnel to perform quality assurance on the data, manage changes to the metadata including impact on both development and operations, and provide analysis of existing data in support of data quality management. As a part of the Data Management and Governance Plan, the contractor shall provide and maintain the following artifacts:

- Data Catalog
- Data Classification
- Data Model & Standards
- Data Management Plan

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- Data Distribution Strategy
- Operational Update Patterns
- Data Interoperability Matrix (end users and systems)
- Data Access Policy and Standards
- Data Strategy and Roadmap, updated from the GFI provided strategy (section J, Attachment S)
- Data Steward Directory
- Business Analytics Roadmap
- Reporting Strategy

### **C.5.3.3 SUBTASK 3.3-API MANAGEMENT SUPPORT**

The contractor shall develop and implement an Application Programming Interface (API) management plan. The API management plan shall include the following:

- Required activities that integrate IAE technical operations and business operations;
- Process of publishing, promoting and overseeing a APIs in a secure, scalable environment;
- Process for ensuring that APIs and the IAE architecture are able to handle workload;
- Activities to ensure seamless and simple API support;
- Steps to ensure all APIs provide the required functionality, scalability, security, throughput and availability;
- Guidance to ensure that the proper documentation and outreach is designed for each API to meet stakeholder needs;
- A proposed strategy for API change management to be approved by the Government; and
- Development of statistics to properly manage APIs.

The plan and standards shall be continually updated as the IAE architecture matures according to the IAE integrated master schedule. The standards shall address technical considerations within the IAE architecture such as:

- Approaches to defining representational state of transfer (RESTful) services within IAE such as the Hypertext Application Language (HAL), JavaScript Object Notation (JSON) Schema, etc;
- Tools or standards that will be used to describe RESTful services (e.g. Swagger, RAML);
- Simple Object Access Protocol (SOAP) standards, including appropriate web service specifications (WS-\*) for achieving IAE's business needs;
- API development best practices for managing versions, translating between different transport mechanisms and formats, and publication;
- API operational best practices for assuring scalability, security, throughput and availability;
- Integration with data.gov and api.data.gov;
- Maintenance of a IAE “/developers” page, as per the OMB open data policies; and
- Approaches to integration with the IAE architecture, such as its Identity and Access Management (IAM) facility.

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The contractor shall support the Government in its outreach strategy for disseminating APIs. This may include aiding the Government in answering questions from API users as to how IAE APIs are to be used and supported. This may include “hackathons” that involve IAE APIs. The API management plan should take this into account.

### **C.5.4 TASK 4 – TECHNICAL REQUIREMENTS DOCUMENTATION SUPPORT**

The contractor shall provide technical requirements capture and documentation support. The contractor shall be capable of supporting Agile development occurring within a CMMI standards based environment to ensure the benefits of both practices. Technical requirements shall be appropriately documented and maintained in an IAE library. Technical requirements shall be updated as required for pre and post transition requirements. All proposed updates shall require the review and written approval of the Government. Types of technical requirement documentation support needed include:

- Propose technical requirements based on business requirements provided by the Government API documentation for technical requirements as provided by the Government and derived from business processes and business requirements;
- Capture and documentation of technical business rules (may be within API documents, may be within a business rules infrastructure);
- Support for screen mockups and throw-away prototypes;
- Documentation of Technical Transition requirements provided by the Government for the new IAE environment; and
- Methodology to derive resources bandwidth to adequately manage backlog across the IAE
- Technical Story Backlog

#### **C.5.4.1 SUBTASK 1 – TECHNICAL REQUIREMENTS SUPPORT**

The contractor shall aid the Government in documenting Government-defined technical requirements which reflect the functional requirements of IAE. These requirements shall be used to execute releases by software developers. These requirements shall be captured and documented through an Agile development process and with Government review and shall be aligned with IAE business processes.

The contractor shall support the Government in the generation of user stories, mockups, and API definitions. The API definitions shall be represented in a test-based manner, in order for the developer to have a clear understanding of the expectation of the API operations at the time of a release or the completion of a sprint. The Government will use these definitions both as part of the publication to API users, and to guide development of those APIs within IAE. The contractor shall assist the Government in documenting and maintaining the following artifacts:

- Technical Stories for components to support business processes; and
- Non-functional requirements documents.

#### **C.5.4.2 SUBTASK 2 – PROTOTYPING**

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The contractor shall support the Government by developing nonproduction prototypes designed to vet decisions around changes to the architecture that improve user experience. These prototypes will be used as a demonstration of a capability to the program office, its governance boards, and its stakeholders in order to receive feedback. They will not be expected to be production-ready. The code for the prototypes will be owned by the Government and may be used to inform changes to production code.

Prototyping will also be used to assess level of effort for planned activities within IAE.

The Government will work with the contractor to determine an appropriate commonly known language to use for prototyping. It is preferred that the contractor use tools described within the technical governance to promote reuse within IAE.

### **C.5.5 TASK 5– USER EXPERIENCE SUPPORT**

The contractor shall assist the Government to develop and document user experience and user interface guidelines for the IAE architecture pre and post transition. The contractor shall assist the Government in the management of the IAE environment to the guidelines pre and post transition into the IAE architecture.

As required, the contractor shall provide facilities for evaluation of user experience. This can include facilities for observing users interacting with IAE applications, heat maps of website usage, and other user interface and user experience analysis. The end goal of such analyses would be to improve the overall user experience of IAE applications.

The contractor shall provide user experience support for the development of plain language interpretations of acquisition and award concepts to document the Federal grants and contracting processes. The contractor shall provide and maintain the following artifacts:

- Analytics reports using IAE analytics tool
- Cross-Component and Cross-Program Design guides for user experience

### **2.5.6 TASK 6 – BUSINESS ANALYSIS AND BUSINESS CASE SUPPORT**

The contractor shall provide business analysis and business case support for the IAE environment pre and post transition to the new IAE environment. The primary purpose of this task is to ensure proposed technical requirements and changes to the IAE environment support the overall mission of IAE. The contractor shall make recommendations regarding the technical solution to achieve IAE mission goals. The Government will be responsible for all decision making regarding the environment, business changes, and technical changes. The contractor shall:

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- Support analysis of business cases around new requirements including high-level cost/benefit analyses;
- Develop business requirements documents as new functional requirements evolve;
- Provide costing expertise to help calculate costs of potential investments;
- Support the development of business transition plans into the IAE environment; and
- Assist in the definition and development of business functions in IAE instance of ProVision or other Government Furnished Property (GFP) IT architecture tool to include association of all business functions with underlying technical components.

### **C.5.7 TASK 7 – PROVIDE CHANGE MANAGEMENT SUPPORT**

The contractor shall provide change management strategy support that will result in a comprehensive, Government-approved IAE Change Management Plan. The contractor shall assist the Government in the development of this plan. This plan will help to ensure that different milestones during transition from IAE current to future state will be adopted by stakeholders. This plan shall address common obstacles to change, and have the overall objective of ensuring adoption of the IAE future state throughout the acquisition community of interest.